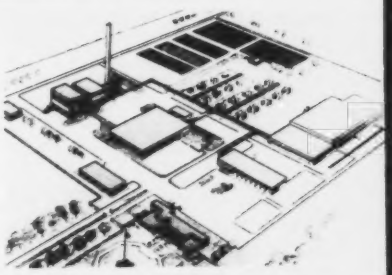


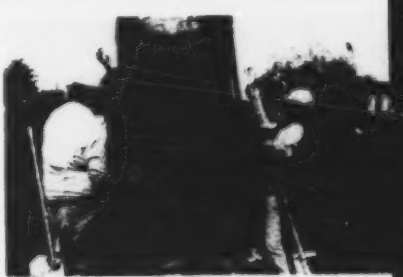
OWMC

Ontario
Waste Management
Corporation

A Crown Agency

Annual Report

1984/85



86-03773/

June, 1985

The Honourable James Bradley
Minister of the Environment

Dear Mr. Bradley:

I have the honour of submitting the fourth Annual Report of the Ontario Waste Management Corporation for the fiscal year ended March 31, 1985.

Respectfully submitted,

D.A. Chant
Chairman and President

Corporate profile

The Ontario Waste Management Corporation (OWMC) was formally created by Chapter 21 of the 1981 Statutes of Ontario which received Royal Assent on July 3rd, of the same year. OWMC's primary responsibility is to design, construct and operate a province-wide system for the treatment and disposal of liquid industrial and hazardous waste, and to develop a long-term program to assist in the reduction and recycling of such wastes.

Objects of the Corporation
From Section 3 of the Ontario Waste Management Corporation Act, 1981:

"A. to research, develop, establish, operate and maintain facilities for the transmission, reception, collection, examination, storage, treatment and disposal of wastes including sewage; and

B. to perform such other duties as may be assigned to it under this or any other Act."

OWMC Board of Directors

Dr. Donald A. Chant,
Chairman and President.

Zoologist, former Vice-President and Provost of the University of Toronto, and former chairman of the Canadian Environmental Advisory Council.

V. Harvey Polk,
Vice-Chairman.

Chief Engineer, Specialized Engineering, Stelco Inc., Hamilton

G. Firman Bentley
Group Vice-President, Basic Petrochemicals Group Polysar Limited, Sarnia.

Mayor Edith L. Fuller
Mayor, Town of Haldimand, Regional Muncipality of Haldimand-Norfolk.

James M. King
Chairman of the Board, Alfa-Laval Limited, Peterborough, Ontario.

R. Stephen Rodd
Professor, School of Agicultural Economics and Extension of Education University School of Rural Planning and Development, University of Guelph

Frank Sommer
Farmer and former President and Director of the Ontario Federation of Agriculture for Haldimand West.

Graham W.S. Scott, Q.C.
Lawyer, partner with McMillan, Binch of Toronto.

Cover photos: (Top) Perspective of OWMC's proposed facilities. (Bottom) Drilling at Site LF-9C in West Lincoln as part of hydrogeological testing program.

Highlights

- Following the announcement of eight candidate sites in March, 1984, OWMC initiated the collection and analysis of detailed information on over 40 site selection factors associated with each site. This effort included deep drilling on each of the sites, a "Walk and Talk" field research program involving 398 personal interviews and 856 drop-off questionnaires, and meetings with local officials and agencies in each of the eight communities. This analysis has moved OWMC to within a few months of selecting a preferred site.

- During 1984-85, OWMC held close to 500 meetings with groups, individuals and organizations, as part of its public consultation and site selection programs.

- Fourteen technical reports were issued detailing the factors used in selecting the eight candidate sites. OWMC also announced a $75,000 public funding program enabling interested groups and individuals to obtain expert assistance for the review of these reports.

- Monenco Limited, OWMC's engineering consultant responsible for preliminary engineering of its facility, completed a status report describing the engineering and operating features presently being designed for the treatment and disposal facility.

- OWMC retained additional incineration technology consultants, consisting of Environmental Elements Corporation of Baltimore, Maryland, U.S.A., Von Roll Limited of Zurich, Switzerland, and Hessische Industriemüll GmbH (HIM) of Wiesbaden, West Germany. Chem-Technics, Inc., of Atlanta, Georgia, U.S.A., were also retained as solidification process consultants.

- OWMC's waste reduction program made contact with some 8,000 Ontario industries, through the Ontario Waste Exchange, a joint program established last year with the Ontario Research Foundation. Further efforts over the past year have included a number of meetings and discussions with government and industry representatives to discuss commercial applications of various waste reduction processes; the hosting of a workshop in December involving participants from industry, government and academic institutions across Canada and the United States to exchange waste reduction ideas; and the examination and assessment of technical processing methods with potential for further reduction, recycling, reuse and recovery of industrial waste.

- Over 500 people attended a series of OWMC province-wide public meetings held last winter to discuss hazardous waste treatment and disposal in Ontario. The meetings were held in six centres across the province — London, Sarnia, Kingston, Thunder Bay, Sault Ste. Marie and Ottawa — as part of an OWMC provincial consultation program on the problems and issues associated with industrial waste management.

- The Hazardous Waste Educational Resource Kit, one of the first secondary school educational resource packages on hazardous wastes produced in Canada, was prepared by the Federation of Ontario Naturalists, in co-operation with OWMC. The kit provides detailed classroom lesson plans, study material, activities and quizzes relevant to industrial waste. About 100 kits were distributed over the past year to teachers and schools requesting them.

- OWMC's marketing survey of 500 industrial waste generators was expanded during the year to obtain data on a total of 1,000 industries generating industrial wastes. This survey is part of the Corporation's ongoing market assessment, in conjunction with the Facilities Development Process.

Chairman's message

1984-85 was an intense and challenging year for OWMC. With the announcement in March, 1984, of eight candidate sites for our proposed industrial waste treatment and disposal facility, we embarked on a detailed study of each site that has involved the collection and analysis of an extraordinary amount of information over the past year. This information is vital, if we are to select a site that is safe and build a facility that can operate efficiently and in an environmentally sound manner.

Perhaps more than any other year since the creation of OWMC, these past 12 months have reinforced my belief in the urgent need for this facility. Almost daily we read about the consequences of improper management and disposal of toxic wastes: the Niagara River, now showing the effects of tonnes of raw, untreated chemical wastes having been dumped near its banks; PCBs spilled on the Trans-Canada Highway in Ontario while en route to Alberta, because no facilities exist for the proper treatment of this highly toxic material in Canada today; and the largest environmental fine in the history of Ontario for illegal dumping of toxic wastes on private property. The evidence accumulates and with it an increased sense of urgency and importance is attached to the job we were created to do.

Achieving our goal — a safe and efficient industrial waste management system for Ontario — must somehow reconcile two seemingly conflicting requirements: the need to be thorough and the need to act soon. I have commented on this delicate balance in previous Annual Reports. I am convinced that if OWMC fails to balance these requirements, Ontario may lose its opportunity to solve this problem for many years to come.

We are very close to achieving our primary goal — the establishement of a world-class industrial waste treatment facility. But two important steps remain. First, we must select a preferred site, which we expect to do within the next few months. We must then finalize and submit very detailed proposals to the Commission on Industrial Waste Management, which has been given the responsibility by the Ontario Cabinet to conduct formal public hearings on our proposals and submit a report to Cabinet.

As we move closer to completing these steps, we will continue to consult widely with the public in an effort to address their concerns, learn more about the issues and questions on their minds, and improve our knowledge of the possible impacts our facility could have in a community. Over the past year, these discussions have brought out a number of conflicting themes and attitudes towards the work we are doing. Some people question the need for our proposed facility, claiming that we should instead focus all of our attention on waste reduction efforts. Others recognize the need for such facilities, but believe there are better ways to treat and dispose of toxic wastes than the technologies we have chosen. Then, there are those who question why it is taking so long to get our facility underway, forgetting that we are considering an investment of millions of dollars of public money, and ignoring the fact that no other jurisdiction in North America has yet been able to site a project of this scope and size.

Our efforts over the past year in the Facilities Development Process have focused on addressing all of these issues while advancing the conceptual design work of our facility through the retention of one of Canada's largest engineering firms and specialized engineering experts from other countries of the world. I am particularly pleased to report this year that our engineering design work has progressed to the stage where we have been able to issue a detailed Facility Design Status Report describing the major features of the facility we are planning to build.

This past year has also involved further programs and initiatives designed to encourage more reduction, recycling, reuse and recovery of industrial hazardous wastes. These efforts must and will continue. But they are no substitutes for modern treatment and disposal facilities. Such facilities are urgently needed in this province. And they must and will be safely located, following the completion of a site selection project that has not been equaled in scope or content anywhere in North America.

D.A. Chant

D.A. Chant
Chairman and President

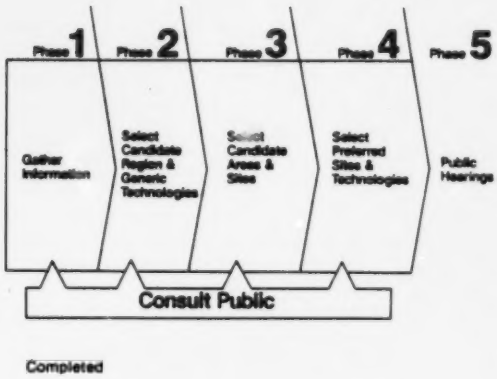
Achieving our goal — safe and efficient industrial waste management system for Ontario — must somehow reconcile two seemingly conflicting requirements: the need to be thorough and the need to act soon.

Facilities Development Process

The current Phase 4 activities of the Facilities Development Process have involved an analysis and assessment of the comparative advantages and disadvantages of the eight candidate sites.

As outlined in previous Annual Reports, OWMC must prepare and present detailed proposals to the hearing Commission on Industrial Waste Management before a hazardous waste treatment and disposal facility can be built. This Commission has been established by the Ontario Government to conduct formal public hearings on OWMC's proposals before submitting its report to the Ontario Cabinet on the safety and suitability of the Corporation's submission.

Figure 1
Facilities Development Process



Following the rejection in 1981 by OWMC of a proposed site near South Cayuga, in the Regional Municipality of Haldimand-Norfolk, a five-phase Facilities Development Process was designed to select a new site and to prepare the necessary proposals for the public hearings (see Figure 1).

In March, 1984, OWMC completed the third phase of this process with the announcement of eight candidate sites, all located within Ontario's Golden Horseshoe Region stretching from Oshawa to Niagara Falls (see Figure 2). These eight sites were selected from 152 possible locations, for three basic reasons:

1. Over 70 per cent of Ontario's hazardous wastes are generated in the Golden Horseshoe Region.
2. By locating the waste management facility close to where these wastes are generated, the transportation risks and costs will be greatly reduced.
3. This region has the type of clay soils necessary for a safe and efficient landfill.

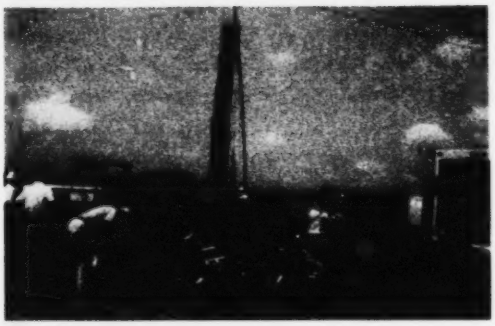
The current Phase 4 activities of the Facilities Development Process have involved an analysis and assessment of the comparative advantages and disadvantages of the eight candidate sites to determine which site or sites is most suitable for a waste treatment and disposal facility.

As part of this process, a "Walk and Talk" field research program was conducted in 1984 on and around each candidate site. The program involved 398 personal interviews and 856 additional drop-off questionnaires, of which 351 were filled out and returned. The "walking" portion of the program involved meetings between OWMC consultants and individuals on and around each candidate site in order to gather data and information on over 40 site selection factors being considered in the comparison and analysis of the sites.

An additional access route survey was conducted in each candidate site area to determine the extent of farming and transportation activity along the local access roads between each site and the 400 series highways. The survey involved 600 questionnaires of which 100 were personal interviews and 500 were dropped off to be returned by mail.

Two technical report workshops were held to give the candidate site working groups an opportunity to review with OWMC consultants the details of the work which led to the selection of the eight candidate sites. In addition, two workshops were conducted to present, review and evaluate the factors being applied in the preferred site selection process.

Following the identification of a preferred site or sites, further on-the-land, site specific testing will be conducted before OWMC makes its final site recommendations to the hearing Commission on Industrial Waste Management.



Residents watch consultants at site LF-3C in West Lincoln during a deep bore hole drilling program to gather hydrogeological information on each of the eight candidate sites.

Figure 2
Candidate Sites

Note: Symbols indicate location only, and not size or shape of sites.
Source: Ontario Waste Management Corporation, March 1985

0 10 Kilometers
0 10 Miles

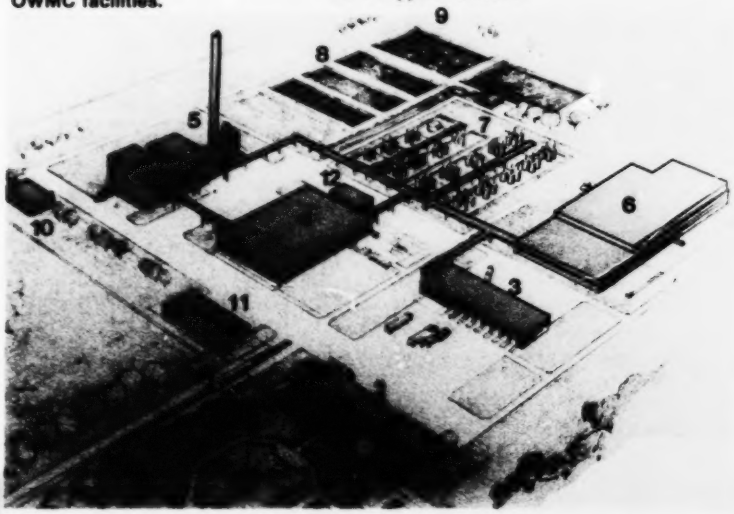
Facility Design & Project Engineering

During 1984-85, OWMC's engineering consultants, Monenco Limited of St. Catharines, continued conceptual design engineering work for the proposed waste treatment and disposal facility that will include: a high temperature thermal destruction process incorporating a rotary kiln incineration system; a physical/chemical treatment process, including solidification; and an engineered landfill (see Figure 3). OWMC has also augmented its engineering consulting team with the addition of several specialist engineering consultants including:

- Incineration Technology Consultant
  - Environmental Elements Corporation Baltimore, Maryland, U.S.A.
  - Von Roll Limited, Zurich, Switzerland
  - Hessische Industriemüll GmbH (HIM), Wiesbaden, West Germany
- Solidification Consultant
  - Chem-Technics Inc., Altanta, Georgia, U.S.A.
- Engineered Landfill Consultant
  - M.M. Dillon Limited, Toronto, Ontario
- Atmospheric Emissions Consultant
  - Ontario Research Foundation, Mississauga, Ontario

During the year, OWMC engineering staff and consultants visited facilities in the United Kingdom, Europe, Japan and the United States as part of the ongoing consultations and discussions the Corporation has conducted with industrial waste management officials throughout the world. In addition, OWMC retained Arthur D. Little International Inc. to review and update OWMC's information on alternative treatment technologies, systems options and selection criteria. This work is scheduled to be completed in 1985. Project engineering staff also commenced work on a Status Report on the Facility Design, scheduled for distribution in April, 1985. This report describes the type of facility OWMC is presently planning to construct and manage and will include detailed information on what the facility will look like, how it will operate and what critera will be used to govern the Corporation's final decisions on all aspects of the design and operation.

Figure 3
Perspective of proposed OWMC facilities.



LEGEND

1. Gate House and Weigh Scales
2. Administration Offices and Laboratory
3. Unloading Bays
4. Drum Storage and Handling
5. Incinerator
6. Physical/Chemical Treatment, Solidification and Tank Storage
7. Incinerator Tank Farm
8. Water and Effluent Ponds
9. Access Road to Landfill
10. Sub Station/Emergency Power
11. Maintenance and Workshops
12. Truck Wash

Waste Reduction

OWMC's emphasis on waste reduction continued in 1984-85 with a number of activities aimed at helping industry find ways to reduce, re-use, recycle and recover its hazardous wastes.

During the year, OWMC sent the Canadian Waste Exchange Bulletin to over 7,000 businesses that do not have waste exchange memberships. The bulletin provides Canada-wide lists of wastes which are either available or wanted. As a result of this effort, a significant increase in enquiries from industry occurred and a number of waste generator/user contacts were initiated.

An OWMC-commissioned report on the Barriers to Reduction, Recycling, Exchange and Recovery of Special Wastes in Ontario was issued in May, 1984. The report describes some of the major barriers currently inhibiting waste reduction efforts in the province.

As a result of intensive work by the Ontario Waste Exchange — an OWMC and Ontario Research Foundation project established in 1984 — over 60,000 pounds of copper/nickel bearing waste was exchanged.

OWMC is also examining and assessing technical processing methods such as extraction, precipitation and filtration to reduce, recycle, re-use and recover industrial wastes. The Corporation will provide interested waste generators with technical assistance in applying some of the more promising waste reduction methods.

In December, OWMC hosted a workshop to exchange ideas and techniques on waste reduction with participants from across Canada and the U.S.

In December, OWMC held a Waste Exchange Workshop in Toronto to generate ideas on how to enhance waste exchange opportunities for industry. The workshop was attended by 23 representatives from industry and government. OWMC's Manager of Waste Reduction also attended a number of waste reduction conferences and gave a presentation on waste reduction and energy conservation to an Educators Workshop in Waterloo, Ontario.

The number of inquiries increased significantly in 1984-85 as a result of OWMC's waste reduction activities.

Communications

The 1984-85 Public Consultation Program involved close to 500 meetings with individuals, groups and organizations in and around the candidate site communities and across the province.

During Phase 4 of the Facilities Development Process, OWMC's public consultation activities have increased significantly as a result of the selection of the eight candidate sites.

IN 1984-85, the Public Consultation Program involved meetings with over 2,000 individuals and organizations, including:

- A series of information days in April, 1984, in each of the site communities to give local citizens an opportunity to discuss their concerns and learn about OWMC's approach to selecting the preferred site. Over 900 citizens attended these meetings.

Province-wide public meetings were held in six centres to discuss hazardous waste treatment and disposal.

- Twenty meetings with working groups from each candidate site to review and verify the "Walk and Talk" information and the results of the drilling program before this information was finalized and applied to the preferred site selection process. Meetings were also held to provide other information to citizen groups in the candidate site communities.
- A community outreach program involving meetings with 44 community leaders from each candidate site and surrounding areas who had not participated in the working groups.
- A province-wide tour by OWMC officials involving public meetings in London, Sarnia, Kingston, Ottawa, Sault Ste. Marie and Thunder Bay, to discuss OWMC's waste management efforts and to encourage a better understanding of the toxic waste issue. Over 500 people attended these meetings.
- Numerous other meetings with individuals, organizations and municipal, provincial and federal government ministries and agencies.

Marketing & Sales

During 1984-85, OWMC continued marketing programs to increase its knowledge of the characteristics and quantities of wastes generated in Ontario, and to develop methods to determine the proper sizing of the proposed waste management facility.

A major study of 500 industrial plants was expanded during the year to obtain data on a total of 1,000 industries. Companies were surveyed to provide information on wastes generated and the various waste management options available to Ontario manufacturers. The data on all aspects of special waste management were recorded on computer files to simplify future analysis.

The marketing and sales department also studied the various factors which are expected to influence the need for treatment facilities in Ontario: the existing capability of commercial and on-site treatment, the effects of new technology, the impact of economic growth, and improved waste reduction techniques.

Long term marketing plans continued to be developed to enable the Corporation to provide waste generators with information on pricing and technical services.

A major study of 500 industrial plants was expanded during the year to obtain data on a total of 1,000 industries.

Aivo Veel (left), OWMC's co-ordinator of technical services, discusses waste analysis techniques with specialist at a Toronto research laboratory.

Financial statements

Ontario Waste Management Corporation

(Incorporated without share capital under the Ontario Waste Management Corporation Act, 1981)

Statement of Financial Position

as at March 31, 1985
(in thousands of dollars)

Assets	**1985**	1984
Current		
Cash	**$ 249**	$ 134
Due from Province of Ontario	**1,289**	1,007
Accounts receivable and prepaid expenses	**19**	37
	1,557	1,178
Loan to Employee	**30**	35
Fixed Assets (note 2)	**356**	351
	$1,943	$1,564

Liabilities and Equity		
Current		
Accounts payable and accrued liabilities	**$2,074**	$1,297
Equity	**(131)**	267
	$1,943	$1,564

Statement of Equity

for the Year Ended March 31, 1985

	1985	1984
Equity, beginning of year	**$ 267**	$ 301
Excess of expenditure over revenue	**398**	34
Equity, end of year	**$ (131)**	$ 267

See accompanying notes to financial statements.

On behalf of the Board:

Chairman

Vice-Chairman

Statement of Operations

for the year ended March 31, 1985
(in thousands of dollars)

	1985	1984
Revenue		
Province of Ontario transfer payments	**$14,849**	$7,157
Interest	**28**	20
	14,877	7,177
Expenditure		
Salaries and benefits	**2,358**	1,455
Site selection consulting services	**6,031**	3,831
Engineering consulting services	**4,223**	16
Waste reduction and market assessment consulting services	**635**	183
Occupancy	**530**	445
Publications, audio/visual aids and public notices	**330**	438
Management consulting services	**164**	86
Office supplies and services	**250**	194
Travel	**143**	116
Legal fees	**223**	112
Staff recruitment, relocation and training	**84**	104
Depreciation	**95**	81
Communications consulting services	**109**	67
Workshops and seminars	**47**	43
Directors' fees and expenses	**53**	40
	15,275	7,211
Excess of expenditure over revenue	**$ 398**	$ 34

See accompanying notes to financial statements.

Statement of Changes in Financial Position

for the year ended March 31, 1985
(in thousands of dollars)

	1985	1984
Working Capital Derived From		
Excess of expenditure over revenue	$398	$ 34
Less: Depreciation	95	81
Repayment of employee loan	5	4
	(298)	51
Working Capital Applied To		
Fixed asset additions	100	141
Decrease in working capital	398	90
Working capital deficiency at beginning of year	119	29
Working capital deficiency at end of year	$517	$119

See accompanying notes to financial statements.

Auditor's report

To the Ontario Waste Management Corporation and to the Minister of the Environment.

I have examined the statement of financial position of the Ontario Waste Management Corporation as at March 31, 1985 and the statements of equity, operations and changes in financial position for the year then ended. My examination was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as I considered necessary in the circumstances.

In my opinion, these financial statements present fairly the financial position of the Corporation as at March 31, 1985 and the results of its operations and changes in financial position for the year then ended in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

In accordance with section 19 of The Ontario Waste Management Corporation Act, 1981, a report on the audit will be made to the Corporation and to the Minister of the Environment.

D.F. Archer, F.C.A.,
Provincial Auditor.

Toronto, Ontario,
June 7, 1985.

Notes to Financial Statements

March 31, 1985

1. Summary of Significant Accounting Policies

i. Basis of Accounting

The Corporation follows generally accepted accounting principles.

ii. Province of Ontario Transfer Payments

Transfer payments are recognized as revenue in the period in which they are committed by the Province.

iii. Fixed Assets

Depreciation for furniture and equipment is computed on the declining balance basis at rates designed to amortize the cost of these assets over their estimated useful lives. Leasehold improvements are amortized on a straight-line basis.

2. Fixed Assets

(in thousands of dollars)

	1985			1984	
	Cost	Accumulated Depreciation	Net Book Value	Net Book Value	Depreciation Rate
Furniture	$203	$ 72	$131	$132	20%
Equipment	258	95	163	140	20-30%
Leasehold Improvements	113	51	62	79	5 year term
	$574	**$218**	**$356**	**$351**	

3. Commitment

The Corporation entered into an agreement effective October 1982 to lease office space for 5 years at a rate of $359,600 per annum. Effective January 1, 1984 additional office space at a rate of $163,400 per annum was negotiated under the same agreement with common renewal terms and expiry date.

4. Comparative Figures

Comparative figures have been reclassified where necessary to conform with 1985 presentation.

OWMC

Ontario
Waste Management
Corporation

A Crown Agency

Readers interested in receiving more information please write to:

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